

Date: Wed, 8 Jun 94 04:30:18 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #173  
To: Ham-Ant

Ham-Ant Digest                      Wed, 8 Jun 94                      Volume 94 : Issue 173

Today's Topics:

    Antenna radiation pattern charts (2 msgs)  
        Antenna Tuning Question  
        bird doo on coax (3 msgs)  
    Broadcast Band Loop Tuning (2 msgs)  
    Curing RF Voltage on Rig case in Mob  
Curing RF Voltage on Rig case in Mobile Units  
    UCSD Ham Radio archives moving  
    Yagi antenna tuning.

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Tue, 7 Jun 1994 08:48:51 GMT  
From: agate!howland.reston.ans.net!pipex!bbc!ant!boyer@ames.arpa  
Subject: Antenna radiation pattern charts  
To: ham-ant@ucsd.edu

Jeff Jones (jeffj@crl.com) wrote:

: I wrote a program to plot out the radiation patterns that I got from  
: Mininec. It works pretty well but the question I have is that while  
: my charts shows the gain of the antennas in DBs, I took off 3 dbs so  
: it isn't in DBi, I looked at the other charts in the ARRL handbook  
: and they all have the DBs in minus form. The best you can hope for in  
: theirs is 0. Could someone explain to me why that is? I see that some  
: are in log form and that makes sense but why the minus sign? Thanks  
: for any and all help for a confused ham!

: --  
: Jeff Jones AB6MB  
: jeffj@crl.com

I'm not a minemec user, but a nec user. I can tell you this it's not 3dB  
you take off it's 2.17dB.

John B  
john.boyer@rd.eng.bbc.co.uk

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Date: 7 Jun 1994 21:21:03 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!  
news.umbc.edu!eff!news.kei.com!ssd.intel.com!chnews!scorpion.ch.intel.com!  
jbromley@network.ucsd.edu  
Subject: Antenna radiation pattern charts  
To: ham-ant@ucsd.edu

In article <2svh97\$bfl@crl2.crl.com>, Jeff Jones <jeffj@crl.com> wrote:

>I wrote a program to plot out the radiation patterns that I got from  
>Mininec. It works pretty well but the question I have is that while  
>my charts shows the gain of the antennas in DBs, I took off 3 dbs so  
>it isn't in DBi...

As someone has already pointed out dBd (db referenced to a 1/2-wave  
dipole) is 2.17 dB less than dBi, not 3 dB.

> ...I looked at the other charts in the ARRL handbook  
>and they all have the DBs in minus form. The best you can hope for in  
>theirs is 0. Could someone explain to me why that is? I see that some  
>are in log form and that makes sense but why the minus sign? Thanks  
>for any and all help for a confused ham!

The usual practice is to adjust the peak of the beam for 0 dB on  
the chart. Note that this is purely relative, not dBd or dBi.  
But then you can read front-to-back ratios and sidelobe levels  
directly from the chart. You look at the backlobe. It peaks at  
-15.7 dB. So you have a 15.7 dB F/B ratio. Simple, no?

>Jeff Jones AB6MB  
>jeffj@crl.com

+-----+-----+  
| Jim Bromley W5GYJ | |  
| Intel Corp. m/s C11-91 | | This message transmitted with |

5000 W. Chandler Blvd.	100% recycled electrons.
Chandler, AZ 85226	
tel: 602-554-5183	Internet: jlbromley@sedona.intel.com

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Date: Tue, 7 Jun 1994 12:47:31 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!  
darwin.sura.net!news.Vanderbilt.Edu!news@network.ucsd.edu  
Subject: Antenna Tuning Question  
To: ham-ant@ucsd.edu

My question is.... will the spacing/element length vary with height above ground.... that is, if I set the element lengths and the spacing between them while on saw horses at 2' above ground using an antenna analyzer for best curves for the frequencies I want to work, will those numbers change as I put the antenna at it's working height? Or is it only impedance that changes?

Bill,

The height above ground will affect ALL settings you have made. Use settings you'll find in Bill Orr's yagi book and just go for it. You'll have to adjust the driven element on the tower/mast plus matching but the spacing/paracitic elements should be like the book. Don't reinvent the wheel.

Good DX,  
K5WIM

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Date: Tue, 7 Jun 1994 03:10:53 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!asuvax!pitstop.mcd.mot.com!mcdphx!schbbs!  
NewsWatcher!user@network.ucsd.edu  
Subject: bird doo on coax  
To: ham-ant@ucsd.edu

In article <1994Jun6.114747.15159@iglou.com>, davidm@iglou.iglou.com (David Michael Moore) wrote:

> sunlight eventually breaks down the jackets and eventually I will have to  
> replace the coax because of it. What I'd like to know is this. The local  
> birds have decided that my coax makes a great rest spot, and have left me  
> their calling cards all over the coax. Will this cause any adverse problems  
> with the jackets, and do I need to be cleaning this off occasionally?

I doubt it David. What actually happens in deterioration with time is the outer jacket material migrates through the shield and into the dielectric.

For most purposes the outer jacket serves only to protect the shield braid from physical abuse.

--

Don Burns  
Plantation, Florida  
epur01@email.mot.com

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Date: 7 Jun 94 15:59:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: bird doo on coax  
To: ham-ant@ucsd.edu

Dave from iglou!iglou!davidm@uunet.uu.net writes:

>I have several runs of coax, mostly RG-8 and Belden 8214, that are about  
>10 feet above ground, running from my house out to my tower. I know that  
>sunlight eventually breaks down the jackets and eventually I will have to  
>replace the coax because of it. What I'd like to know is this. The local  
>birds have decided that my coax makes a great rest spot, and have left me  
>their calling cards all over the coax. Will this cause any adverse  
problems  
>with the jackets, and do I need to be cleaning this off occassionally?  
>  
>And yes I'm really asking this...April Fools Day was two months ago!  
>  
>David - KD4RMW  
>davidm@iglou.com

Dave,

You should have no problem with your bird doo on the coax. It may actually make that section (view inches) last longer. It would be corrosive to the connectors (acid in urine) but it won't hurt the polyethylene jacket. If you want them to stop using your coax as a resting place you might (after you clean it off) place a little mentholated petroleum jelly on the coax where they have been sitting. You might also go to a local toy store and buy a rubber snake and attach it to the coax near where they have been sitting. (Make it seem as if the snake is crawling along the coax.) If you do that be sure that the eyes are a very bright and shiny color. That works for the black birds and pigeons that we have down here.  
Good luck.

Kevin

Legal stuff:

The above opinions are my own and not necessarily those of the staff,

faculty, administration, or lab animals (woof!) of The University of Texas Health Science Center at San Antonio.

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Kevin R. Muenzler, WB5RUE  
muenzlerk@uthscsa.edu

The University of Texas Health  
Science Center at San Antonio,  
Department of Computing Resources

    \*\* There is no such thing as a Monkey-Proof Program! \*\*  
    \*\*                                I can prove it!                                \*\*  
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Date: 7 Jun 1994 17:43:49 GMT  
From: lll-winken.llnl.gov!noc.near.net!jericho.mc.com!fugu!levine@ames.arpa  
Subject: bird doo on coax  
To: ham-ant@ucsd.edu

In article 15159@iglou.com, davidm@iglou.iglou.com (David Michael Moore) writes:

-->I have several runs of coax, mostly RG-8 and Belden 8214, that are about  
-->10 feet above ground, running from my house out to my tower. I know that  
-->sunlight eventually breaks down the jackets and eventually I will have to  
-->replace the coax because of it. What I'd like to know is this. The local  
-->birds have decided that my coax makes a great rest spot, and have left me  
-->their calling cards all over the coax. Will this cause any adverse problems  
-->with the jackets, and do I need to be cleaning this off occassionally?  
-->

-->And yes I'm really asking this...April Fools Day was two months ago!

-->

-->David - KD4RMW

-->davidm@iglou.com

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Aren't you the same guy complaining about birdies on his scanner a few weeks ago also?

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Date: Tue, 7 Jun 1994 14:24:00 GMT  
From: newsflash.concordia.ca!vax2.concordia.ca!hirschj@uunet.uu.net  
Subject: Broadcast Band Loop Tuning  
To: ham-ant@ucsd.edu

I have the plans for a simple spiral loop antenna for the .54-1.6 MHz AM broadcast band. It shows a small variable capacitor at the base of the loop for tuning the antenna, and it says the

antenna output should be fed directly to the radio  
and NOT through an antenna tuner unit. My radio  
has a built in antenna tuner. Should I then leave out  
the capacitor at the base of the antenna? Help please.

Message-ID: <7JUN199409245061@vax2.concordia.ca>

Organization: Concordia University

News-Software: VAX/VMS VNEWS 1.41

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Date: Tue, 7 Jun 1994 20:37:02 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!swrinde!gatech!news-  
feed-1.peachnet.edu!darwin.sura.net!news.Vanderbilt.Edu!news@network.ucsd.edu

Subject: Broadcast Band Loop Tuning

To: ham-ant@ucsd.edu

Jack,

Keep the tuner inline with the BC antenna. I question that the simple  
spiral loop antenna will be as effective as a long wire (as long as you can  
make it). The tuner in the receiver matches the feed line/antenna to the rig.  
You can use all the help you can get.

Good DX,  
K5WIM

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Date: 7 Jun 1994 05:13:30 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.umbc.edu!eff!  
news.kei.com!news.byu.edu!news@network.ucsd.edu

Subject: Curing RF Voltage on Rig case in Mob

To: ham-ant@ucsd.edu

Karl, Cecil, and Andy,

I was delighted with your replies. I even invited my wife in to see  
your responses and to show her just some of what amateur radio is all about.  
Your input was most helpful and instructive and I think that others besides  
myself benefitted therefrom. I am looking forward to implementing each of your  
suggestions. You guys are great and thanks again!

73,

--

Vince Hadley |  
KA7GVQ |  
hadleyv@bones.et.byu.edu |

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Date: 7 Jun 1994 15:27:35 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!news.byu.edu!news@network.ucsd.edu  
Subject: Curing RF Voltage on Rig case in Mobile Units  
To: ham-ant@ucsd.edu

Cecil,

I appreciated your comments, they help me realized I'm not going crazy but that I just need to keep trying (esp about the short case ground). Your comments about the S0239's are something I never considered before- Thanks!

73

--

Vince Hadley |  
KA7GVQ |  
hadleyv@bones.et.byu.edu |

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Date: 7 Jun 94 23:18:29 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: UCSD Ham Radio archives moving  
To: ham-ant@ucsd.edu

The anonymous FTP archives of ham-radio-related files and programs have been moved from host UCSD.EDU to host FTP.UCSD.EDU at address 128.54.16.7.  
- Brian

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Date: 7 Jun 1994 08:40:47 -0700  
From: ihnp4.ucsd.edu!library.ucla.edu!psgrain!news.tek.com!cascade.ens.tek.com!not-for-mail@network.ucsd.edu  
Subject: Yagi antenna tuning.  
To: ham-ant@ucsd.edu

I used to have a Wilson TA-36 tribander on a tower that tilted over. I was able to tune the antenna with it tilted over to about 2 feet off the ground on the reflector side. I found that while the tuning changed somewhat, it was predictable. As I recall the 20 meter resonant point would move up or down about 50-100 Khz. With the tilt over tower I found this an excellent arrangement and could play with the tuning of the antenna and learn alot about how it worked.

This should work for any yagi antenna. Just point it skyward with the reflector 2 or 3 feet off the ground and tune it up. Then see what happens as you raise it to operating height.

One thing, IT DOESN'T WORK FOR QUADs. Quads need to be adjusted at their operating height and are difficult to predict which way their tuning will shift as you raise or lower them.

Terry, KI7M

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End of Ham-Ant Digest V94 #173

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